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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,122	06/26/2001	Hassan Mostafavi	264/027	4891
23639	7590	11/04/2003		
BINGHAM, MCCUTCHEN LLP THREE EMBARCADERO, SUITE 1800 SAN FRANCISCO, CA 94111-4067			EXAMINER CHURCH, CRAIG E	
			ART UNIT 2882	PAPER NUMBER

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,122

Applicant(s)

MOSTAFAVI, HASSAN

Examiner

Craig E. Church

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20, 26-59, 80-95, 108 and 109 is/are pending in the application.
- 4a) Of the above claim(s) 21-25, 60-79, 96-107 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16 and 26-49 is/are allowed.
- 6) ☒ Claim(s) 17-20, 50, 54, 55, 59, 80-95, 108 and 109 is/are rejected.
- 7) ☒ Claim(s) 51-53 and 56-58 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**Claims 96-107 are directed to the invention of nonelected group II and are withdrawn from consideration.**

**Claim 59 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations conveyed by the phrase "not in real time" in claim 59 are unclear.**

**The following is a quotation of the first paragraph of 35 U.S.C. 112:**

**The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.**

**Claims 17-20, 50, 54, 55, 59 and 80-86 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for gating imaging and radiation therapy procedures, does not reasonably provide enablement for gating any and all medical procedures. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. As an example, the disclosed gating is not enabling for filling a cavity in a person's tooth.**

**The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

**(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the**

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art t which said subject matter pertains. Patentability shall n t be negated by the manner in which the invention was made.

**Claims 17-20, 87-95, 108 and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hounsfield (3952201). Hounsfield teaches a CT scanner comprising an x-ray source 2 and detector 6 mounted on a rotating gantry 7 driven by motor 8, ecg monitor 10 and speed control 12 for for adjusting the motor speed dependent on motion of a patient's heart. The two states in the heart cycle that cause gating the source on and off are movement above the designated threshold and movement below the threshold or the beginning and ending of specific phases of the movement. Line 66 of column 3 to line 11 of column 4 describe an embodiment in which image data is correlated with motion data so as to selectr the image data that falls within prescribed regions of the cardiac cycle. It would have been obvious to one of ordinary skill in the art to employ the Hounsfield technique with other imaging modalities such as MRI and PET.**

**Claims 51-53 and 56-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

**Claims 1-16 and 26-49 are allowed.**

**Applicant's arguments filed July 11, 2003 have been fully considered but they are not persuasive. Applicant's argument traversing the rejection of claim 17 is not understood as the amplitude f heart motion may clearly be regarded**

as representing "a degree of completion of a cycle". A degree of completion could be at the beginning of a cycle, at the end or anywhere in between.

Regarding claim 87, while Hounsfield's disclosure suggests monitoring cardiac motion, its broader teaching is to monitor any physiological motion that might degrade imaging including paristaltic and respiratory movement.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Craig E. Church at telephone number 703-308-4861.

*Craig E Church*

**Craig E. Church**  
**Senior Examiner**  
**Art Unit 2882**